

RECEIVED
CENTRAL FAX CENTER
MAY 15 2009

10/822,003
F02-167191/UK

7

REMARKS

Claims 1-17 and 23-26 are all the claims presently pending in the application. Claims 4-5, 7-8, 12-13 and 15-17 have been withdrawn. Claims 1, 2, 4-6, 10, 13-14, 16-17, 23 and 25 have been amended to more particularly define the invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-2, 6, 9, 22-23 and 25-26 stand rejected under 35 U.S.C. § 101 as being allegedly directed to non-patentable subject matter.

Claims 1-2, 6, 10, 14 and 22-26 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov, Dmitry
<http://www.inf.uszeget.hu/~SSIP/2001/handouts/chetverikov/by> (hereinafter, "Chetverikov")
in view of Matsugu (US Patent 6,636,635).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov and Matsugu, and further in view of Roundhill et al. (US Patent 6,447,453).

Claims 9 and 11 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Chetverikov and Matsugu, and further in view of Yang et al. (US Patent 6,580,810).

These rejections are respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention (e.g., as recited in claim 1) is directed to a method of detecting whether an image to be processed includes an image of a characteristic portion, including imaging a subject at a location to form an image to be processed, and obtaining information about a distance between the subject and the location, using the information to set upper and lower limitations on a size range of a search window for an image of a characteristic portion with reference to a size of the image to be processed, determining a size of the search window within the size range between the upper and lower

10/822,003
F02-167191/UK

8

limitations, cutting sequentially plural images having a predetermined size from the image to be processed, a size of the cut images being limited based on the determined size of the search window, comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window, and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window. (Application at Figure 2 (S12); page 18, line 8-page 21, line 7),

These features may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

II. THE 35 USC 101 REJECTION

The Examiner alleges that claims 1-2, 6, 9, 22-23 and 25-26 are directed to non-statutory subject matter.

However, Applicant notes that claim 1 has been amended to recite "using an imaging device to image a subject ...". Thus, Applicant respectfully submits that claim 1 is clearly tied to another statutory category, and clearly qualifies as a statutory process.

In view of the foregoing, the Examiner is respectfully requested to withdraw this rejection.

III. THE ALLEGED PRIOR ART REFERENCES

A. Chetverikov and Matsugu

The Examiner alleges that Chetverikov would have been combined with Matsugu to form the invention of Claims 1-2, 6, 10, 14 and 22-26. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

However, Applicant respectfully submits that these alleged references are unrelated. Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not

10/822,003
F02-167191/UK

9

teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Chetverikov, nor Matsugu, nor any alleged combination teaches or suggests *"determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window"*, as recited, for example, in claim 1, and similarly recited in claim 10 (Application at Figure 2 (S12); page 18, line 8-page 21, line 7). As noted above, this may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

Clearly, this feature is not taught or suggested by the cited references.

Indeed, Applicant would point out that none of the references discloses or suggests using both a template and a search window. Specifically, the amended claim 1 recites " ... cutting sequentially plural images ... limited based on the determined size of said search window; and comparing the cut images with one of templates ... ".

First, Applicant would point out that Chetverikov does not have a date thereon and therefore cannot be used as prior art against the present Application.

Moreover, Chetverikov simply teaches a method of template matching and feature detection. The Examiner attempts to rely on page 1, col. 1 in Chetverikov. However, this passage simply discloses a method of finding a pattern in an image.

That is, nowhere does Chetverikov teach or suggest "determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut

10/822,003
F02-167191/UK

10

images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window" as recited in claim 1.

Similarly, Matsugu only discloses, in summary, the size of a template is calculated based on the focal length and/or the distance to the object (See, Col. 45-47). That is, the Examiner may state the template recited in claim 1 is disclosed in Matsugu, however, can not state the search window is disclosed in Matsugu.

In addition, the Examiner "cutting plural images ..." recited in claim 22 is disclosed in col. 47 lines 40-67 of Matsugu. However, Applicant thinks "cutting sequentially plural images ..." is not disclosed in Matsugu. Especially, the description of col. 47 lines 51-53 only discloses "determining an appropriate range of the template size on the basis of the distance information obtained by the object distance detection unit 505", which is different "cutting sequentially plural images".

Therefore, Matsugu clearly does not teach or suggest "determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search."

Therefore, Matsugu clearly does make up for the deficiencies of Chetverikov.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

10/822,003
F02-167191/UK

11

B. Roundhill and Yang

The Examiner alleges that Chetverikov and Matsuga would have been further combined with Roundhill to form the invention of **Claim 3**, and with Yang to form the invention of **claims 9 and 11**. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention.

However, Applicant respectfully submits that these alleged references are unrelated. Indeed, no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

In fact, Applicant submits that the references provide no motivation or suggestion to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, neither Chetverikov, nor Matsugu, nor Roundhill, nor Yang, nor any alleged combination teaches or suggests *"determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window"*, as recited, for example, in claim 1, and similarly recited in claim 10 (Application at Figure 2 (S12); page 18, line 8-page 21, line 7). As noted above, this may help to reduce a number of times that a comparison is performed, to speed up processing and increase precision.

Clearly, this feature is not taught or suggested by the cited references.

Indeed, Roundhill simply discloses a method of analyzing cardiac performance using

10/822,003
F02-167191/UK

12

ultrasonic diagnostic images (Roundhill at Abstract).

That is, like Chetverikov and Matsuga, nowhere does Roundhill teach or suggest "determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search window" as recited in claim 1.

Similarly, Yang simply teaches a method of image processing in three-dimensional head motion tracking. That is, like Chetverikov and Matsuga, Yang does not teach or suggest "determining a size of said search window within said size range between said upper and lower limitations; cutting sequentially plural images having a predetermined size from said image to be processed, a size of said cut images being limited based on the determined size of said search window; comparing the cut images with a template of a plurality of templates corresponding to the image of the characteristic portion, if any template of the plurality of templates conforms in size to the determined size of the search window; and comparing the cut images with a resized template which is resized from a template of the plurality of templates, if no template of the plurality of templates conforms in size to the determined size of the search."

Therefore, neither Roundhill, nor Yang make up for the deficiencies of Chetverikov and Matsuga.

Therefore, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every feature of the claimed invention. Therefore, Applicant respectfully request that the Examiner withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

RECEIVED
CENTRAL FAX CENTER

MAY 15 2009

10/822,003
F02-167191/UK

13

In view of the foregoing, Applicant submits that claims 1-17 and 22-24, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date:

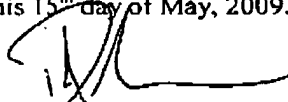
5/15/09

Phillip E. Miller, Esq.
Registration No. 46,060

McGinn IP Law Group, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817
(703) 761-4100
Customer No. 21254

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that I am filing this Amendment Under 37 CFR §1.111 by facsimile with the United States Patent and Trademark Office to Examiner Jeffrey S. Smith, Group Art Unit 2624 at fax number (571) 273-8300 this 15th day of May, 2009.



Phillip E. Miller, Esq.
Registration No. 46,060